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MULTIMEDIA TYPE ELECTRONIC MAIL SYSTEM AND RECORDING MEDIUM
THAT RECORDED MULTIMEDIA TYPE ELECTRONIC MAIL PROGRAM

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and recording medium that recorded
multimedia type electronic mail
program

(54) [Title of the invention]

MULTIMEDIA TYPE ELECTRONIC MAIL SYSTEM AND RECORDING MEDIUM THAT
RECORDED MULTIMEDIA TYPE ELECTRONIC MAIL PROGRAM

(57) [Abstract]

[Topics]

It provides the electronic mail system which simply prepares the electronic mail of multimedia type in which a plural number of media information is synchronized temporally, and which is equipped with the interface which enables viewing simply.

[Problem solution]

Regarding the multimedia type electronic mail system, transmission side terminal device is equipped with the preparation means of the electronic mail that can set up the language information, image information, and the mutual relationship of language information and image information on the same screen of the display part, and on the receiving side terminal device, according to the aforementioned mutual relationship, without scrolling up the screen of the display part, the electronic mail can be reproduced. Such inputting can be set up on aforementioned same screen by arranging on the preparation sheet the electronic mail data such as characters (the characters from Japanese hiragana 'ki' to same "ta" as shown in the figure), data icon of image information and the program icon which controls the display of image information (presentation opening and completion display

as shown in the figure.

[Scope of the patent claims]

[Claim item 1]

Regarding the multimedia type electronic mail system which transmits and receives the multimedia type electronic mail which consists of a plural number of media information which contains language information, and image information, and which includes the transmission side terminal device which transmits the aforementioned multimedia type electronic mail, and the receiving side terminal device which receives the aforementioned multimedia type electronic mail transmitted,

It is the multimedia type electronic mail system characterized such that aforementioned transmission side terminal device is equipped with aforementioned multimedia type electronic mail preparation means that can set up the aforementioned language information, aforementioned image information, the mutual relationship of aforementioned language information and the aforementioned image information on the same screen of the display part screen equipped by aforementioned transmission side terminal device, and aforementioned reception side terminal device can reproduce the aforementioned multimedia type electronic mail without scrolling the display part screen used to reproduce the aforementioned multimedia type electronic mail according to the aforementioned mutual relationship.

[Claim item 2]

It is the multimedia type electronic mail system described in the claim item 1 characterized such that regarding the preparation means of aforementioned multimedia type electronic mail, electronic mail data is inputted by arranging on the preparation sheets that was set up on the display part screen equipped by aforementioned transmission side terminal device wherein said electronic mail data are classified into three types of input items such as the characters in order to constitute the aforementioned language information, data icon in order to constitute the aforementioned image information, and the program icon in order to control the display of aforementioned image information.

[Claim item 3]

It is the multimedia type electronic mail system described in the claim item 2 characterized such that aforementioned program icon is prepared in order to set up the temporal synchronous relationship with aforementioned language information and aforementioned image information.

[Claim item 4]

It is the multimedia type electronic mail system described in any of the claim items 1, or 3 characterized such that aforementioned reception side terminal device is equipped with the means to convert into sound the aforementioned language information contained in the aforementioned multimedia type electronic mail

received, and reproduce it.

[Claim item 5]

It is the multimedia type electronic mail system described in any one of the claim item 1 through 4 characterized such that the preparation means of the aforementioned multimedia type electronic mail has the function that can change and delete the aforementioned electronic mail data position arranged on the aforementioned preparation sheet, and the function that can insert the aforementioned new electronic mail data, and can correct the aforementioned multimedia type electronic mail prepared.

[Claim item 6]

It is the multimedia type electronic mail system described in any one of the claim item 1 through 5 characterized such that aforementioned reception side terminal device is equipped with the specified reproduction function which contains each function such as fast reverse, spinning top return (see the figure 5 in the back), spinning top forward (same as the last), fast forward, stop and temporary stop and the like, and by the said special reproduction functions, while maintaining the aforementioned temporal synchronous relationship, the aforementioned multimedia type electronic mail can be reproduced and controlled.

[Claim item 7]

Recording medium that recorded multimedia type electronic mail program is characterized such that it includes the multimedia type

electronic mail program which transmits and receives the multimedia type electronic mail which consists of a plural number of media information which contains language information, and image information, and it includes the program that controls the multimedia type electronic mail that includes the transmission side terminal device which transmits the aforementioned multimedia type electronic mail, and the receiving side terminal device which receives the aforementioned multimedia type electronic mail transmitted, and the aforementioned transmission side terminal device is equipped with aforementioned multimedia type electronic mail preparation means that can set up the aforementioned language information, aforementioned image information, the mutual relationship of aforementioned language information and the aforementioned image information on the same screen of the display part screen equipped by aforementioned transmission side terminal device, and aforementioned reception side terminal device can reproduce the aforementioned multimedia type electronic mail without scrolling the display part screen used to reproduce the aforementioned multimedia type electronic mail according to the aforementioned mutual relationship.

[Detailed explanation of the invention]

[0001]

[The technical field of the invention]

The present invention relates to the multimedia type electronic

mail system which handles picture, and music and the like that are image type information by adding to the language type information, in more details, it relates to the multimedia type electronic mail system for the homes in which the transmitters can prepare the mail simply by one dimensional means, and the receiver can reproduce the mail easily by using the ability to hear and view the video.

[0002]

[Prior arts]

The traditional mail is centered on the characters information, and when handling a plural number of information such as pictures and music, it was necessary to transmit and receive this information independently, and the burden on the operators on transmission side or receiving side was quite large.

[0003]

For instance, in case pictures are sent, it is not possible to mix them with characters information on the screen or the transmission sheet, and paste the pictures at a specified address.

Hence, it is necessary for transmission side to prepare the data file independently of the characters information, and attach them to electronic mail, and on the receiving side, it is mandatory to do operation of opening and seeing the file attached separately from the mail characters information that was sent.

[0004]

And also, unless the receiving side does not have the program to process the sender's data format at this time, files like this can not be opened. And using such a method, it is not possible to show the position relationship between the characters information and the picture sent by the separate data file independent from the characters information, hence, the greater burden of interpreting the content falls on the receiving side.

[0005]

Regarding the part of the electronic mail, the product is commercialized wherein the characters and still picture are mixed on the same sheet and can be transmitted and received, however, it is merely mixing the characters and the still picture at an optional position and displaying, and in case the moving picture, sound, and music information and the like are handled combined with time element, it was not possible to transmit and receive while relating these information and the like temporally.

[0006]

Hence, as the multimedia type electronic mail which combines characters information and image information, utilization limitation is produced on its own.

[0007]

On the other hand, multimedia type electronic mail system disclosed in Japan Patent Publication Hei6-77992 Gazette, an idea of the electronic mail system is shown in which a plural number of

information such as character, sound, picture are synchronized spatially and temporally, and transmitted and received..

[0008]

It is not that a plural number of information is transmitted and received by individual data file format, but that a plural number of information is optionally positioned in one space, in addition, the temporal timing which displays these is set up also, thus providing the multimedia type electronic mail transmission and reception means.

[0009]

For instance, the language information transmitted is read by voice, and at certain timing, related pictures are displayed at an optional location, and at timing, a different picture is displayed at the optional location, thus showing the content wherein a plural number of information is synchronized spatially and temporally, thus electronic mail is transmitted and received.

[0010]

However, as shown in Japan Patent Publication Hei-6-77992 Gazette, regarding the method wherein a plural number of information such as characters, sound and pictures and the like are laid out spatially and temporally, and synchronized and prepared and reproduced, Director and the like by Macro Media Co, so called Authoring system is commercialized and widely used.

[0011]

What this Japan Patent Publication Hei06-77992 Gazette refers to is not more than what is so called conceptual content, that is, multimedia information prepared and reproduced by Director and like is unfolded by electronic mail. Hence, problems, and its solution do not have a concrete nature.

[0012]

[Problems the present invention attempts to solve]

As described above, regarding the traditional electronic mail system, characters information is the center and if other picture and music that are image information are handled, using the separate file format independently of the characters information, such image information is prepared and transmitted and received non-synchronously.

[0013]

However, as in the system shown in Japan Patent Publication Hei6-77992 Gazette and the method in aforementioned Director, it is anticipated that such a construct will be crystallized wherein a plural number of information is synchronized spatially and temporal and prepared, then transmitted and received.

[0014]

In case one with such multimedia type expression is prepared, the purposes are different between the case where the product is prepared using above described Director and the like, and the case where the transmission content by electronic mail is prepared,

the demand by the user for the time to prepare and the difficulty degree for operations naturally differ.

[0015]

In order for the electronic mail of multimedia type to be actually commercialized, and be popularized, how to design the interface at the contact point with the users becomes a large subject as follows; on the transmission side of electronic mail, how one can prepare it easily, and on the receiving side, how one can view it.

[0016]

That is, regarding the traditional electronic mail, the problem was that simple and easy preparation and reproduction of multimedia type electronic mail is not possible, and as far as the difficulty of the preparation, same problem exists for the software to create multimedia such as Director.

[0017]

Standing on such a view point, in the present invention, in order to simply prepare multimedia type electronic mail in which a plural number of information such as character, picture, music are temporally synchronized, and view it easily, the topic is to solve the problem in order to provide the multimedia type electronic mail system which is equipped with the interface to prepare and reproduce which did not exist traditionally.

[0018]

[Means to solve the problems]

The invention in claim 1 is characterized such that regarding the multimedia type electronic mail system which transmits and receives the multimedia type electronic mail which consists of a plural number of media information which contains language information, and image information, and which includes the transmission side terminal device which transmits the aforementioned multimedia type electronic mail, and the receiving side terminal device which receives the aforementioned multimedia type electronic mail transmitted,

The aforementioned transmission side terminal device is equipped with aforementioned multimedia type electronic mail preparation means that can set up the aforementioned language information, aforementioned image information, the mutual relationship of aforementioned language information and the aforementioned image information on the same screen of the display part screen equipped by aforementioned transmission side terminal device, and aforementioned reception side terminal device can reproduce the aforementioned multimedia type electronic mail without scrolling the display part screen used to reproduce the aforementioned multimedia type electronic mail according to the aforementioned mutual relationship.

[0019]

Regarding the multimedia type electronic mail system described in claim 1, the invention in the claim 2 is characterized such that

regarding the preparation means of aforementioned multimedia type electronic mail, electronic mail data is inputted by arranging on the preparation sheets that was set up on the display part screen equipped by aforementioned transmission side terminal device wherein said electronic mail data are classified into three types of input items such as the characters in order to constitute the aforementioned language information, data icon in order to constitute the aforementioned image information, and the program icon in order to control the display of aforementioned image information.

[0020]

Regarding the multimedia type electronic mail system described in claim 2, the invention in the claim 3 is characterized such that

Aforementioned program icon is prepared in order to set up the temporal synchronous relationship with aforementioned language information and aforementioned image information.

[0021]

Regarding the multimedia type electronic mail system described in any of the claim 1 through 3, the invention in the claim 4 is characterized such that the aforementioned reception side terminal device is equipped with the means to convert into sound the aforementioned language information contained in the aforementioned multimedia type electronic mail received, and reproduce it.

[0022]

Regarding the multimedia type electronic mail system described in

any of the claim 1 through 4, the invention in the claim 5 is characterized such that the preparation means of the aforementioned multimedia type electronic mail has the function that can change and delete the aforementioned electronic mail data position arranged on the aforementioned preparation sheet, and the function that can insert the aforementioned new electronic mail data, and can correct the aforementioned multimedia type electronic mail prepared.

[0023]

Regarding the multimedia type electronic mail system described in any of the claim 1 through 5, the invention in the claim 6 is characterized such that the aforementioned reception side terminal device is equipped with the specified reproduction function which contains each function such as fast reverse, spinning top return (see the figure 5 in the back), spinning top forward (same as the last), fast forward, stop and temporary stop and the like, and by the said special reproduction functions, while maintaining the aforementioned temporal synchronous relationship, the aforementioned multimedia type electronic mail can be reproduced and controlled.

[0024]

[Embodied example of the invention]

The present invention is the system equipped with the mail preparation method in which on the preparation sheet, the icons which show the control program of the image information and the image

information such as picture and music in addition to the characters information, are arranged along the time sequence, thus inputting the electronic mail.

[0025]

Transmitter arranges such icons on the time sequence, thus, can simplify the synchronization of the information where language type and image type are mixed as one pleases. And, on the receiving side, language type information and image type information arranged by the receiver on the time sequence are synchronized and can be reproduced according to the transmitter's intent.

[0026]

The electronic mail can be reproduced that was transmitted with the ease as if handling VCR. Furthermore, regarding the inputted characters, on the receiving side, it is converted into sound, and while being synchronized with image information, it is reproduced.

[0027]

In the present invention, the means to simply prepare what the transmission side desires to express in mail and the means for the receiving side to view it easily are provided. First of all, the means to prepare mails will be shown.

[0028]

If the transmitter can prepare mails just by arranging the content one wants to transmit to the counterpart (language, image information) on the time sequence, one is not cumbered by the spatial

layout, and one can just arrange the info one wants to send by time flow sequence, the transmission content can be made up in the form close to the conversation.

[0029]

Hence, (1). The characters as the language type information, (2). The icons which show the plural number of image information such as the image, sound, music and the like that is prepared in advance, (3). Icons which show the program information in order to control the image information (in the images are included speaking facial display which expresses the face expression), the present invention provides the means to assemble the above described three types of characters or icons in one dimensional space.

[0030]

Next, the means to view the received mail will be shown. The receiver does not have to engage in an active operation such as scrolling the screen of the mail, depending on the need, or clicking the icon in order to invoke something, but if one can confirm the mail by the operation sequence close to viewing and hearing the video work, then, anyone can handle it easily.

[0031]

And also, regarding icon operation in which the received mail is scrolled by operation of the receiver or icons are operated, depending on the specification of the operation, sometimes the content of the transmitter can be missing. And if the plural number of the

information is not automatically synchronized (according to the transmitter's intent), there are cases when the intent of the transmitter can be misunderstood.

[0032]

Hence, in the present invention, when transmission mail is confirmed, the reproduction can be done by the simple operation method similar to the video operation, furthermore, depending on the necessity of the receiver by the special reproduction, the means to confirm the mail content is provided.

[0033]

The following will specifically explain the embodied examples referring to the drawings attached. Figure 1 is a flow chart of the mail transmission in order to explain one embodied example of the electronic mail system by the present invention, in the figure, 11 is a transmission side terminal device, 12 is a mail management center, and 13 is a receiving side terminal device.

[0034]

Figure 2 is a drawing showing one embodied example of the preparation sheet used to prepare the electronic mail in the electronic mail system by the present invention.

[0035]

Figure 3 is a drawing showing one example of the characters and icon pallets used to prepare sheets shown in figure 2. Figure 4 is a drawing showing the preparation confirmation picture of the mail prepared

by the preparation sheet shown in figure 2 as time passes.

[0036]

Figure 5 is a drawing in order to explain one example of reproduction operation of the electronic mail shown in figure 2, the reproduction interface equipped by reception side terminal device is shown in (A), and reproduced screen is shown in (B).

[0037]

The following explains the flow of the transmission and reception of multimedia type electronic mail while referring to figure 1~ figure 5. Regarding the transmission side terminal device 1 shown in figure 1, from the three types of input items such as [character] from the characters and icon pallet shown in figure 3, [data icon] which is image information, [program icon] which controls the image information, the information is extracted per unit, and inputted, these information are arranged on the preparation sheet shown in figure 2 according to the sequence one wants to transmit (Step S1).

[0038]

At this time, the sound interval between [character] and [character] when the characters inputted at [missing] is converted into sound and reproduced is set up. Next, it moves to preparation control process (Step S2). Here, while the sequence to present the information inputted and arranged and the processing of the time control of each information presentation are being executed by the system, prepared mail is reproduced, at this time, the [character]

inputted is converted into sound and reproduced.

[0039]

And, regarding presenting the image information at this time, the presentation time is determined by the input sequence with

[characters]. That is, basing on the arrangement of [characters] as the foundation, presentation timing of [image data] is controlled by the preparation control process.

[0040]

And, regarding the reproduction time of image information, simultaneously with the time when it is synchronized with the sound and finished, using [program icon], the optional display time setup can be set up separate from the reproduction time of [characters].

[0041]

However, in case it is cut and separated and set up like this, the temporal cycle relationship produces a fixed relationship when image information and [characters] are reproduced.

[0042]

[0042]

The above described processing example will be explained referring to figure 2. For instance, the characters are input stating [kyowa, fujisanniitta (today I went to Mt Fuji)], at this time, before [ki] and after [ta], image information, the still screen data icon, [Mt. Fuji] is put, and for each data icon, the program icons of still picture [presentation opening] and [presentation completion] are put,

then, when this is reproduced, while [I went to Mt. Fuji] is reproduced in sound, the still picture of the Mt. Fuji is displayed.

[0043]

And, regarding the reproduction time of such still picture, reproduction time can be set up separately from the character, for instance, instead of [presentation completion] of the program icon, if [10 seconds after presentation completion] is input, at the reproduction time, for 10 seconds after the sound saying [today I went to Mt Fuji] is reproduced, the still picture of the Mt. Fuji is continued to be displayed.

[0044]

And, (when it is converted into sound on the receiving side), the setting of interval time of the characters reproduction is for instance (setting variable) 0.5 seconds, and [,], [.] are handled as space (no sound). The reproduction interval time between [data icons] of the image information at this time is zero.

[0045]

As shown in figure 1, the content prepared by the above described operation can be reproduced by the confirmation process and can be displayed for confirmation. (Step 3). Here, here the confirmation example of the mail content is explained while referring to figure 4. When the confirmation operation is executed, first, still picture of [Mt. Fuji] and the music of [BGM-a], and the voice of [today, I ... Mt. Fuji] begin to be reproduced simultaneously.

[0046]

And, here by characters number 14, the second interval time is set to be 0.5 second, hence, 7 seconds after starting reproduction, the sound and the music saying [... went to Mt. Fuji] is finished. At this time, still picture continues to be displayed. After this, 17 seconds after starting reproduction, still picture display is finished; the display of the mail content is completed as expected. At this time, END mark is displayed.

[0047]

As shown in figure 1, the confirmation display as described above is executed, consequently, if transmission is selected and it moves to transmission process, the data and program of the content prepared are processed as one object, and is transmitted to the mail management center 12 from transmission side terminal device 11 (Step S5).

[0048]

On the other hand, in case it is not transmitted by confirmation display but the content modification is selected, it returns to the input operation.

[0049]

Regarding the above described modification method, among [character], [data icon], [program icon] inputted into the preparation sheet as shown in figure 2, one can delete only what is necessary for correction or can insert a new setup information.

[0050]

At this time, regarding the deleted portion, this part automatically gets filled up, and in case there is an insertion, this part becomes spaces and depending on the insertion information amount, the succeeding part slides.

[0051]

Next, regarding the mail reproduction program that was processed as one object at the transmission processing of transmission side terminal device 11, as shown in figure 1, it is transmitted from mail management center 12 to receiving side terminal device 13 (Step S6), is subjected to transmission processing and reception processing at the reception side terminal device (Step S7).

[0052]

And, the content of electronic mail which is reproduced as reproduction control process is controlled along the time axis (Step S8). At this time, by the reproduction interface shown in figure 5 (A), various reproductions such as fast forward, Spinning top backward (see figure 5), stand still, spinning top forward (see figure 5), slow can be executed, adding to the regular reproduction by the method which corresponds to what is shown in video player.

[0053]

For instance, when spinning top backward operation is done, in the control program of the image information inputted into the preparation sheet, the start and end are reversed, and return reproduction is executed. And, on the display screen, the image same

as that of preparation confirmation screen is reproduced.

[0054]

At this time, the reproduction mode display is displayed on the screen. For instance in figure 5(B), it shows the screen for spinning top forward.

[0055]

Regarding such special reproduction, the program portion which controls the interval time of the [character] which sets up the time axis, and the presentation time of the image information can be controlled totally.

[0056]

That is, in case the fast forward reproduction is executed, the setting of the interval time of [character] and the presentation time of the image information are subjected to variable processing, and reproduction time is shortened. Thus, mail reproduction program is executed, and at this time, when the [character] inputted from transmission side terminal device 11 is reproduced and displayed at receiving side terminal device 13, it is converted into sound, and reproduced into sound. (Figure 1, Step S9).

[0057]

Above described one embodied example was explained in which electronic mail program in order to realize each function is assembled into the system in advance, the electronic mail program which realizes each of these functions can be loaded into the system from the

recording medium, and same operation can be executed. And, as the external recording medium, all medium such as CD-ROM, floppy disk, and magneto-optical disk and the like can be used.

[0058]

[Effects of the invention]

Effects of claim item 1: in preparing and reproducing mails when image information such as picture and music and the like are transmitted and received as the multimedia type electronic mail in addition to language type information, it can be executed by a simple operation along time sequence.

[0059]

Hence, handling of the multimedia type electronic mail which required knowledge and experience so far, particularly the operation in preparing is simplified, thus expanding users and usages.

[0060]

Effect of claim item 2: adding to the effect of claim item 1, the image information which one wants to input and reproduction condition of said image information are changed into icons, thereby, icons can be simply selected on the terminal device, thereby, and the operation in preparing electronic mail can be executed easily and fast.

[0061]

Effect of claim item 3: adding to the effect of claim 2,
As the reproduction condition of image information, the temporal

synchronized condition of language information and the image information can be selected by icons, thereby, aforementioned temporal synchronized setting can be done easily and fast.

[0062]

Effect of claim item 4: adding to one effect of any of claim 1 through 3, language information is converted into sound and can be reproduced, thereby, video work can be obtained as the information close to viewing and hearing, and one can understand the intent of the transmitter better.

[0063]

Effect of claim item 5: adding to one effect of any of claim 1 through 4, the electronic mail prepared can be modified, thereby; the operation can be executed more easily and simply.

[0064]

Effect of claim item 6: adding to one effect of any of claim 1 through 5, with the ease as if handling VCD, the electronic mail can be reproduced.

[Simple explanation of the drawings]

Figure 1 is a flow chart of the mail transmission in order to explain one embodied example of the electronic mail system by the present invention.

【図1】

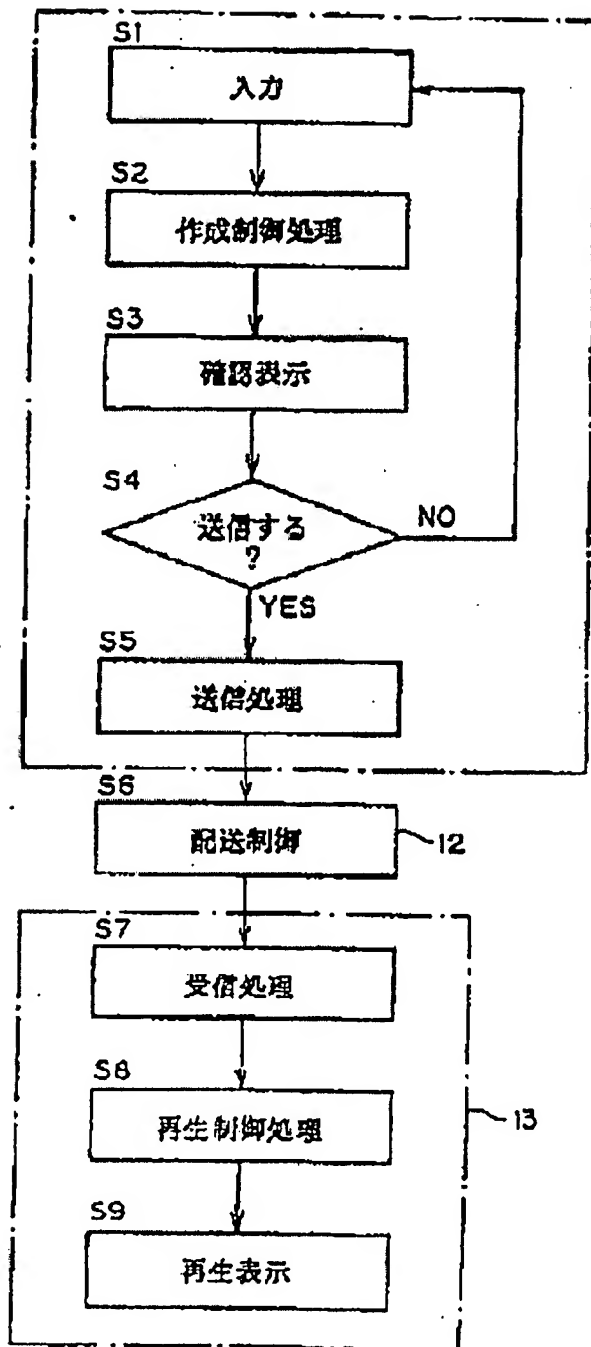


Figure 2 is a drawing showing one embodied example of the preparation sheet used to prepare the electronic mail in the electronic mail system by the present invention

【図2】

....	人	田中太郎	山田太郎	田中太郎	山田太郎	山田太郎	山田太郎
う	は	,	ふ	じ	さ	ん	
に	,	い	っ	た	人	田中太郎	田中太郎
山田太郎	田中太郎						
						

Figure 3 is a drawing showing one example of the characters and icon pallets used to prepare sheets shown in figure 2

【図3】






「文字」	イメージ情報の 「データアイコン」	イメージ情報の 「プログラムアイコン」
あいうえお かきくけこ さしすせそ たちつてと なに・・・ ・・・ ・・・	<div>  再生山のスナップを 示すアイコン </div> <div>  BGMを示すアイコン </div>	<div>  通知音 </div> <div>  再生終了 </div> <div>  再生終了 </div>

Figure 4 is a drawing showing the preparation confirmation image of the mail prepared by the preparation sheet shown in figure 2

【図4】

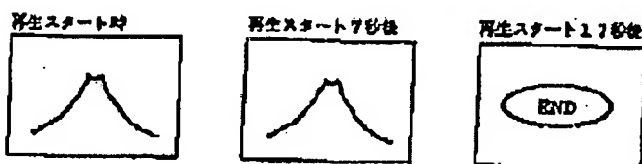
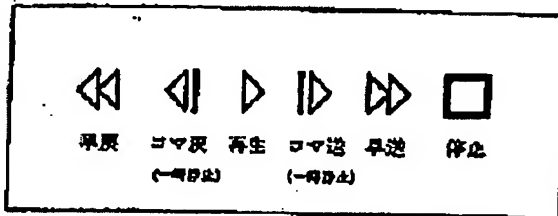


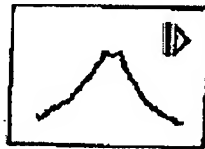
Figure 5 is a drawing in order to explain one example of reproduction operation of the electronic mail shown in figure 2.

【図5】

(A)



(B)



[Explanation of the symbols]

11... transmission side terminal device

12... mail management center

13... receiving side terminal device

Figure 2

				Ki	YO	
U	WA	,	Fu	JI	Sa	N
Ni	,	I	Tu	Ta		

Figure 5

Fast reverse	Spinning top	Reproduction	Spinning top	Fast forward	stop
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	backward (temporary stop)		forward (temporary stop)		

[Figure 1]

S1: input
S2: preparation control process
S3: confirmation display
S4: transmit?
S5: transmission process
S6: Delivery control
S7: reception process
S8: reproduction control process
S9: reproduction display

Figure 3

[character]	[data icon] of image character	[program icon] of image character
A I U E O	Icon showing the snap picture of	Display started
Ka Ki KU Ke KO	Mt. Fuji	Display ended
Sa Shi Su Se So	An icon showing BGM	
Ta Chi Tsu Te To		[illeg]display ended
Na Ni...		

Figure 4

When starting reproduction,

7 seconds after starting reproduction

17 seconds after starting reproduction